

D. Project description

Performing temporary spaces for user driven innovation

1. Summary

The partners in the alliance are coming from DTU, DKDS, and CU and have a common focus on user involvement in innovation. The research takes the outset in the identification and performance of temporary, provisional spaces where a variety of actors are assembled with the aim of fostering innovation through an engagement with existing and imagined practices. In contrast to most previous work on user-driven innovation our approach does not hinge on the existence of established communities of users, which designers can ‘tap into’ and inter-act with. Our research will explore situations where the staging of temporary spaces for innovation can lead to the creation of new practices and emerging artefacts through open-ended interaction.

The alliance’s draws on actor-network-theory, practice theory, social learning and design research underpinning that innovation entails series of translations. The research is organised in three phases:

1. Drawing on the partner’s earlier research complemented by an overview and analysis of contemporary approaches to user-driven innovation the alliance’s methodology will be refined.
2. The core of the research will be organised within four projects each emphasising a specific mode of inquiry and covering a number of different sites for user engagement. The projects study how users and innovations are co-constructed within temporary spaces and will produce a repertoire of methods that can help understanding and support co-creation.
3. The activities will be finalised with a synthesis and outline of how to stage and improve design education, design practice, and innovation management.

The alliance collaborates with international researchers and facilitates exchange through publications, seminars, and international conferences. All partners are engaged in education and professional training opening for continued interaction with students and practitioners in design and innovation.

2. Objective of the project

The alliance will accommodate research and outreach activities with the aim of developing a repertoire of methods capable of enabling user-driven innovation as the performing of temporary spaces under conditions of uncertainty. This development will utilize the achievements in the sociology and history of technology (STS). The objectives of the alliance encompass:

- explore and describe contemporary methods and approaches in user-driven innovation;
- develop an understanding of the co-construction of users, processes, and artefacts throughout the design process;
- refine a research methodology connecting ethnographic studies of practices, interventions in design laboratories and informed design competences bound together by translation processes;
- carry out projects based on a research methodology and produce a repertoire of methods to be used in staging processes of user-driven innovation and the co-construction of artefacts;
- facilitate a number of research projects creating sites for experimenting with the concept of temporary spaces through a series of inter-active case studies; and
- synthesize and position the repertoire of methods into recommendations for the staging of user-driven innovation within public and private companies and organisations.

3. The main results of the project

The alliance is organized as a close and innovative collaboration between three research groups based in Copenhagen. The partners contribute with distinct competencies from ethnology, design research and socio-technical analysis to the cooperation. The partners have defined an overarching theoretical vocabulary, a common list of hypotheses, and a workshop-style organization, which will enable joint efforts on the empirical, experimental, and educational dimensions. Moreover, the alliance will engage a number of internationally recognized researchers within the broad and fast-moving field of user-driven innovation and will organise international research activities generating a solid foundation basis for world class research and publications positioning Danish research in this growing international field.

The societal contributions of the alliance will be equally strong. It will instigate a systematic investigation and reflection on conditions, processes and methods which contribute to user-driven innovation in Danish companies and organizations beyond existing user configurations. The novel and transformative approach taken here is based on the identification and enactment of temporary and provisional spaces engaging users not yet identified and in the process of being constituted to enable new types of use and practice and corresponding innovative designs. The research approach will have a substantial 'dialogical' tone investigating temporary spaces for user-driven innovation in close collaboration with leading practitioners in a number of different sectors of society. Together with these practitioners, the alliance will develop new concepts and tools for user-driven innovation.

Finally, the planned activities include continual efforts to bring strategic research into master-level educational programmes in the partners' institutions. The next generation of professionals in user-driven innovation will thus benefit in a very immediate way.

4. Background and hypothesis of the project

Research on user-driven innovation has mainly focused on situations where 'the user' and 'the use' is in an already configured state; Studies of lead user innovation (von Hippel 2005) investigate users, such as surfers or open source developers, who are innovative within their strong and well-established communities. Studies of professional user-producer relations also take the well-established community of practice, such as the work practice of dairy technicians or medical doctors, as their point of departure. In these studies, the user can give expert advice, precisely because he or she is competent within a well-established practice (Christensen & Lundwall 2004). Even in processes of participatory design, the interests, the needs, the abilities and the identity of the user is often taken for granted to a large extent

However, many activities resulting in innovations are more temporary, more provisional, more varied, and more volatile than the examples above. Furthermore many innovative concepts, arrangements, designs, and products generate new practices (Mackay 2000). Taken together, this points to the need for practical and theoretical spaces for user-driven innovation, which do not build on existing patterns of use and users, but nurtures the emergence of new configurations of use, users and artefacts (Oudshorn & Pinch 2003). It suggests the importance of spaces for assembling, combining, exploring and generating new constellations of designs, products, meanings and practices. We call these spaces and the corresponding sites of interaction 'temporary spaces'. We also recognise that potentially fruitful interactions are not just limited in time. Temporary spaces are characterised by being provisional and volatile networks of actors and artefacts, yet having the crucial function of bringing together those actors that have in common the capacity to engender innovative ideas and include often marginalised users, non-users, or users-to-be in triggering a redefinition of established practices and in enabling transformative ideas.

Our purpose is to create a research alliance dedicated to the task of tracing, enhancing, improving, and reflecting upon emerging design practices, in close dialogue with practitioners. The activities are organised with the following hypotheses as the outset:

- Deliberately designed ‘temporary spaces’ of innovation can produce novel designs and transform and redefine existing user configurations around emergent types of practice and artefacts.
- Active interventions through structured ‘design laboratories’ can trigger actors to engage in redefining their focus and practices.
- A close examination of the staging, structuring and equipment of the temporary space is crucial to understand its potential to translate existing practices and their limitations into the generation of novel ideas, artefacts, and configurations in subsequent practices.

In the work, we will draw upon Science and Technology Studies and especially actor-network theory (ANT). ANT has developed a material-semiotic vocabulary (Latour 2005) and a series of exemplary case studies of power, knowledge and innovation (Latour 1996; Callon 1986; Law 2002). ANT is an analytical tool well suited to trace how temporary spaces of innovation translate, assemble and creatively combine and reframe a variety of resources and practices (Elgaard Jensen 2008) creating new alignments and reconfiguring relations. In this respect it is more than simply a descriptive framework as it facilitates engagements with socio-material processes (Vikkelsø 2007). Moreover, ANT was developed in, and remains in, close and productive dialogue with the other theoretical resources, which we will mention in the following. We therefore expect considerable compatibility and synergy between our theoretical sources of inspiration.

We will draw on practice theory (Shove et al 2007; Suchman 2007) and the related tradition of social studies of learning (Schön 1983; Weick 1996; Wenger 1998). These sources provide exemplary studies and a theoretical vocabulary for understanding action and agency in sense-making practices, situated negotiations, and processes of reproduction and transformation that a.o. makes it possible to address the ‘interface’ between personal trajectories and collective attempts to develop shared discourses and practices (Wetherell 1998; Davies & Harré 1990), and will support the analysis and transformation of users’ roles before, during, and after participation in a temporary design space.

Lastly, the domain of design research is highly relevant to our alliance due to its specific investigations of the relation between design and use (Redström 2006), of critical design interventions (Dunne 2006), and of co-creation (Sanders & Stappers 2008) as well as concepts of performance, rehearsal and liminality within performance studies (Turner 1987). Design research is closely and productively linked with design experimentation, and there has been a series of interesting attempts to conceptualize co-design processes in terms of language games (Ehn 2006) and co-designed objects as boundary object (Star 1995). Design research has also engaged directly with and reflected upon specific forms of temporary innovative space (e.g. Design laboratories, see Binder & Brandt 2008).

5. Innovative value, impact and relevance of the project

There is a growing emphasis placed on the ‘fuzzy front end’ and the extended use of design consultants who promise to be skilled in ‘thinking out of the box’. Such trends simultaneously highlights the new demands that companies face and at their uncertainty about how to respond, opening also for attempts to engage in co-production through intermediaries (Friis 2004). This involves working with new actors and trailing new loci for collaborative innovation transforming existing approaches to organise innovation.

In synthesising and developing such methods the alliance will contribute significantly to the improvement of innovative capability in a broad range of public, companies, and consultants as well as citizens and civil society. New occupational roles for designers, new organisational forms for collaboration and learning will be an outcome, achieved through the close interaction with teaching programmes in design and innovation at the participating institutions.

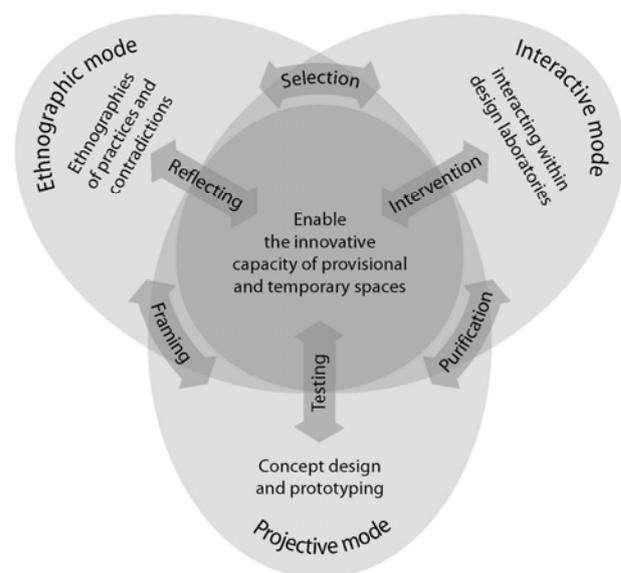
In broader terms, the significance of the alliance and its approach can be indicated by outlining two different strands of innovation theory. The first, which we might call driver-theories, assume that innovation processes can be explained by specific drivers such as price, technology, or user needs. A majority of previous work on user-driven innovation, including lead user theory and business anthropology, and even the very term ‘user-driven innovation’ is grounded in this paradigm. The second strand may be call co-constructivist and is based on sociological, anthropological, and historical studies of technology. It argues that the notion of specific innovation drivers is a misleading simplification because users, practices and technologies develop through *interdependent* processes every step of the way.

The innovative value of the research is to bring co-constructivist innovation theory to bear on the question of how to stage interactions between actors and artefacts in emerging networks. Lessons learned from recent projects carried out by the partners including three user-driven innovation projects funded by the Danish Enterprise and Construction Authority (DECA) suggest that the co-construction paradigm has much to offer as a resource for the transformation of practices and as a framework or systematic reflection. The projects: ‘User driven innovation and communication of textile qualities’, ‘A design-anthropological innovation model’, and ‘Futures interactive shopping for everyday commodities’ have produced insights resulting in the developed methodology of the alliance having the potential to reform existing design practices (Lindegaard & Okholm 2009; Damsholt & Jespersen 2009).

6. Project’s methodology and results

The core research projects within phase 2 described in the following section are structured in accordance with a common research methodology (three modes of inquiry coupled through intermediary translations) developed by the alliance. It allows for a division of focus of the specific research activities at the same time securing their coherence and cross-fertilisation. The three modes of enquiry reflect different ways of bringing together studies of relations to users in the making (reflecting, intervening and testing in the figure) as well as introducing different stylised phases of inter-active engagements mediated by translation devices (framing, selection and purification in the figure) enabling a user-engaging design process overall. The three modes of inquiry are as follows:

- An *ethnographic* mode of inquiry involving studies of practices and the tensions and contradictions as they arise amongst a multiplicity of users, use situations, and assemblies of artefacts. Research questions concern the comparative performance and practical value of temporary spaces across different settings and configurations of user involvement and user marginalisation. (Damsholt & Petersen 2008; Lindegaard 2008; Elgaard Jensen 2008).
- An *interactive* mode of inquiry involving the staging of interactions within design laboratories in which new concepts can inform and challenge existing practices including experimentation, design games, storytelling, role plays, and development of representational devices. Key issues are how to select participants, structure and configure the interventions and use practitioners’ experiences (Brandt, Messeter & Binder 2008; Binder & Brandt 2008; Clausen & Yoshinaka 2007).



- A *projective* mode of inquiry involving the framing and qualifying of design processes engaging in ways to represent use and users, concept development, user testing, re-structuring of practices, and co-construction efforts involving artefacts, procedures and framing. The research will draw on social learning theory and studies of design practices and competences within different strands of the design profession (Nickelsen 2003; Jørgensen 2007; Ahmed 2007).

Identifying ways to handle translations and synergies between the different modes of inquiry is an important aim of the research as these are crucial for carrying out user involving design. A brief scenario for possible translations entails that observations from the ethnographic mode will place emphasis on the potential for change. Common visions and critiques marginalised by everyday routines and professional framings, but visible as contradictions and discrepancies will be identified (Lindegaard & Okholm 2009; Brandt 2007). These will inform the selection of participants and the input to e.g. the design laboratories of the interactive mode enabling a space to mobilise visionary ideas. From the design laboratories outcomes must be given a form that generates transferable ideas for change as a basis for concept developments. A continued engagement by the actors from the laboratories is important for the transformation of conceptual ideas to concrete designs that can be tested in the projective mode. Identification of the ways that use and users are represented will be crucial for the creation of concepts and solutions that meet the perspectives and needs of users (Damsholt & Jespersen 2009).

Temporary spaces as defined in this application do appear in many places, but based on our earlier experience we anticipate that it will be easier to identify such spaces and even trigger experiments at places of societal, organizational or business transformation (called ‘design junctions’: Schot et al 2004; Jørgensen 2009). Our interest in sites of transformation has led us to select the empirical cases for the research projects listed below.

- Changing food practices and notions of healthy living in relation to strategies for food distribution and shopping (COOP)
- New efforts to integrate medical devices and assistive technologies in human everyday life, which includes not only the direct users but also significant others, and non users (Oticon, Snitker, Hjælpemiddelinstittet).
- The search for new uses and practices in relation to comfort and energy usage in private housing (Velux).
- The development and organizing of multistakeholder involvement in public infrastructure services (Københavns Teknik- og Miljøforvaltning).
- New experiments with co-creation and the use of intermediaries arranged by design consultancies and other dedicated organisations (Designit, 1508, 3PART, Workz, Mindlab).
- Evocation of new user practices as an impetus for design of specialised professional equipment (Linak, Coloplast).

The external partners: companies, consultants, and public institutions will be involved in the research as sites for case studies and experiments as well as with own contributions and experiences to be exchanged at the workshops organised by the alliance.

In the following we outline 4 core projects that constitute the alliance’s main empirical and theoretical research activity.

Project 1: Exploring innovative potentials of ethnographic representations of users

The descriptive stance adopted in studies of (current) practices will form the basis for asking critical questions and reflection on alternative practices and excluded network relations (Blomberg et al 2003). Our studies can be conducted and collaboratively analyzed through reflective dialogue with the informants including participant observation, ethnographic interviews, group interviews,

interaction analysis, diary methods, and document analysis. One of our goals will be to bring actors together in a critical dialogue on ethnographic descriptions of users and use practices, and the more common representations of users e.g. through quantitative measures.

In the project, the first step will be to conduct a thorough ethnographic study of a particular existing use practices. The aim of the initial study is to generate a conception of users and use practices in a mode, which is inspired by well-established ethnographic traditions. The next step is to relate these descriptions to existing ways of representing users and practices. The two bodies of information will be related by (a) a systematic exploration of differences between the sets of knowledge through a series of meetings, and (b) a sustained attempt to explore the possibilities of bridging the different forms of knowledge through the development of innovative concepts, procedures and products.

The empirical focus of the project will be a selected issue within grocery shopping. The issue will be chosen in cooperation with COOP, it will relate to an on-going debate on health in an ageing population and will be discussed with Centre for Healthy Ageing. The overall results of the project is on the one hand specific innovations related to grocery shopping, on the other hand a thorough empirically driven reflection on the possibilities of integrating significantly different (qualitative and quantitative) representations of users and use practices. The results will be communicated to and discussed with the other partners and furthermore used to broaden the scope of methods and forms of cooperation. The main faculty responsible for project 1 will be T Damsholt (Ethnology, CU).

Project 2: Design laboratories and the rehearsal of new practices

Temporary spaces can be self-organized and take various forms, but when used as a deliberate device to create intermediary spaces we call these *design laboratories*. Within this project the unfolding of temporary spaces and particularly design laboratories are the objects of research. The project will pursue the hypothesis that this unfolding of temporary spaces can be productively conceptualized as *rehearsals* of new (innovative) practices. Contradicting the mundane assumption that use and users are either trivially present or cannot be conceived at all as long as new products are not available, we will furthermore assume, supported by the wide spread use of new forms of scenic representations (such as personas, scenarios, design mock ups, design games, and prototyping) that it is precisely use and users that are most preeminently configured and performed in these rehearsals.

Design laboratories have proven to be useful as a prescriptive methodological tool particularly to inform the brokering competency of consultancies and design bureaus. In the project we will work closely with brokering organizations that have adopted the idea of design laboratories. With a mixed sample of collaborators including design bureaus (1508, 3PART, Workz, Designit) and in-house consultants (Mindlab) we will conduct 6-8 ethnographic and reflective case studies of unfolding design laboratories through participant observation. The case studies will reveal how design laboratories can be conceived as a rehearsing of innovative practices involving stakeholders and the socio-material context in which they are situated. Based on these case studies we will explore and expand specific performance formats of collaboration such as design games, scenarios, and the enactment of critical design interventions. Experiences from design experiments engaging such formats and conducted in collaboration with consultancies will feed into a repertoire of approaches and the other research projects. The main faculty responsible for project 2 will be T Binder (DKDS).

Project 3: Representations and translations in design practices

The translation of knowledge on users and practices into organised design processes is known to be difficult. Knowledge on users in the making is vulnerable and is filtered throughout the process of transfer resulting in representations providing the basis for creating new object worlds and scripts, but also presupposing a stability that may not exist when design is perceived as co-creation. Representations of use translated through intermediary organisations or via spokespersons may even deepen this potential gap.

Performed representations and translations are the object of this research focusing on a variety of sites and processes. Approx. 20 cases demonstrating different ways of user involvement and representation in contemporary practices will be identified for detailed study. These cases will in the first place be mapped through interviews and where possible ethnographic observation studies will be initiated following the identification of critical elements of representation, translation, framing, and entity assignment to objects in the making. The interviews and observations will be tagged and analysed in detail using standard protocols and methods. In relevant cases we will trace or follow leads to examine user investigations and the role of intermediaries. Mapping the development of design scripts throughout these cases is assumed to form the basis for integrating the observed critical elements and to establish a basis for describing variations giving way for comparative analyses. The outcome will demonstrate which competences and organisational structures as well as representations (prototypes, information, and other types of boundary objects) that might be useful for a design process and how user perspectives may be kept alive in a co-construction process. This will lead to the next phase of intervention studies which is to engage the external partners in experiments with organising design as a co-construction process.

The project holds the responsibility for the contacts to Oticon, Hjælpemiddelinstuttet, Velux, and Københavns Teknik- og Miljøforvaltning. The main faculty responsible for project 3 will be U Jørgensen (DTU).

Coordination and Integration of project results

The projects described utilize the partners' different core competences by giving the project responsibility to the partner with most experience in that mode of enquiry. Several of the involved external partners are interested in and will provide resources for case studies across the different modes of enquiry. These cases will typically be organised as a cooperation involving the other partners' expertise and advice enhancing the cross-institutional cooperation and transfer of knowledge and experiences between the partners. In addition, the cooperation and mutual support between the partners will be secured by means of a series of joint seminars (se paragraph 14)

One possible outcome of the first years of research is the delineating of new ways of structuring processes of user engagement and co-creation leading to continued re-definitions of the boundaries and the space for cross-fertilisation between the core projects of the alliance.

7. Project plan

The activities carried out by the strategic alliance in the five years of research activities outlined will be structured in three partly overlapping phases of 1, 3½ and 2 years.

Phase 1: Sharing experiences and mapping existing research

The aim of the first year of the alliance is to generate a broad and updated knowledge base, which will inform subsequent activities. The first activity is to arrange 2-3 *alliance partner seminars* presenting and contrasting experiences from the three projects on user-driven innovation funded by DECA and carried out by the partners. The seminars will follow up and conclude ongoing activities by examining the three guiding questions of the alliance:

- In what ways have users been brought into collaborative innovation in previous projects, and how might this process be enhanced?
- In what ways have temporary spaces been arranged, set-up, and managed in previous projects, and how might these processes be enhanced?
- What are the challenges in translating the work and ideas from one particular innovative space to subsequent spaces and practices and how are these challenges handled?

This will result in a summary report registering the variety of ways in which users are brought in, temporary spaces are arranged, and translations are handled. This will eventually lead to a refinement and also some additions to the methodology presented in the previous section.

Subsequently, the report will provide a framework and the analytical focus of a research ***Project 0: Mapping experiences from user-driven innovation projects***. This research project will be organised as a multiple case study (Yin 2008) and will include 10-15 finished and ongoing projects funded e.g. by the Strategic Research Council and the DECA program on user-driven innovation. In addition 3-5 international projects will be included. From each project, key documents will be collected and interviews with project managers and participants will be conducted. The focus of the data collection will be on approaches to user participation, settings framing co-construction, and on traceable innovative and methodological outcomes. The analysis will formulate and examine relations between, on the one hand, the arrangement of (types of) spaces and, on the other hand, the possibilities of identifying and engaging users and of translating ideas into further development activities. The main faculty responsible for project 0 will be T E Jensen (DTU).

This first phase of the alliance's activities will thus result in an overview of approaches and experiences with user driven innovation. The results will be presented at a conference for Danish and international researchers in user involvement and innovation. A summary article will be published based on the conference. In addition, dissemination to a wider audience will be achieved by feeding the results into ongoing work on a monograph on user-driven innovation as a sociological and innovation policy phenomenon.

Phase 2: Exploring modes of inquiry in co-construction projects and experiments (Project 1-3)
Research and innovation projects based on case studies in a variety of sites will be initiated *studying existing practices, developing methods, and testing these in interactive cooperation with external partners*. The research is organised within three projects focusing on the modes of inquiry as for one of the three projects as outlined in section 6 and will involve a wide set of actors engaged in user related activities spanning public sector organizations, product developing companies, consultants, and users in different constellations. The selected projects will enable comparison and analysis of a diversity of sites, set-ups, and ways of enabling temporary spaces having implications for user construction and use practices.

The activities in phase 2 will provide a *platform for exchange and guidance for the projects and case studies* facilitating a series of approx. 9 to 12 workshops organised by the alliance on topics of relevance to aims of the alliance and supporting cross fertilisation between projects. Here methodological experiences and temporary results will be presented typically focusing on topics from and organised by one of the three projects at a time. The workshops will expose, challenge, and substantiate productive theories of user-driven innovation related to each of the three modes. The themes of a first series of workshops will be outlined in the section on the network function below.

Depending on the topics to be discussed, these workshops will either include primarily researchers or they will address topics of interest for all external partners and collaborators. In addition the alliance will function as a resource for other business and public innovation projects which deliberately pursue a user-driven approach. The results presented at the workshops will be published in journal articles and if possible in one or two edited volumes.

Phase 3: Synthesis of results and staging of user-involving innovation processes

Building on the results from the research in phase 2 and partly overlapping this phase the alliance's joint activities will focus on the wider effects and implications of user-involving innovation including the competences needed to stage the overall process in public organisations, private enterprises, and as a consultant service.

This activity is organised as a separate research ***Project 4: Enacting and staging user involving innovation***. An increasing number of companies and public institutions are facing challenges with existing, highly institutionalized, and path dependent practices for the development of new products and services. As a response, they focus on developing collaborative spaces based on new ways of enacting co-creating and handling new concepts often labelled 'front end of innovation'. The experience from these activities is that user ethnographies and qualitative knowledge is not easily

translated into ideas for new products and services. Established design practices are often sustained by current product and service concepts and governance practices and rules, strategic concerns for market development act as political filters for supporting user based ideas. The project will include findings from project 1-3 as well as additional studies of organisational processes. It will analyse how design is staged through managerial activities based on retrospective interviews with key persons and observation of ongoing processes of dialogue and interaction in innovation management. Temporary spaces for collaboration will be compared according to the role of organizing activities such as design laboratories or other practices of participating companies.

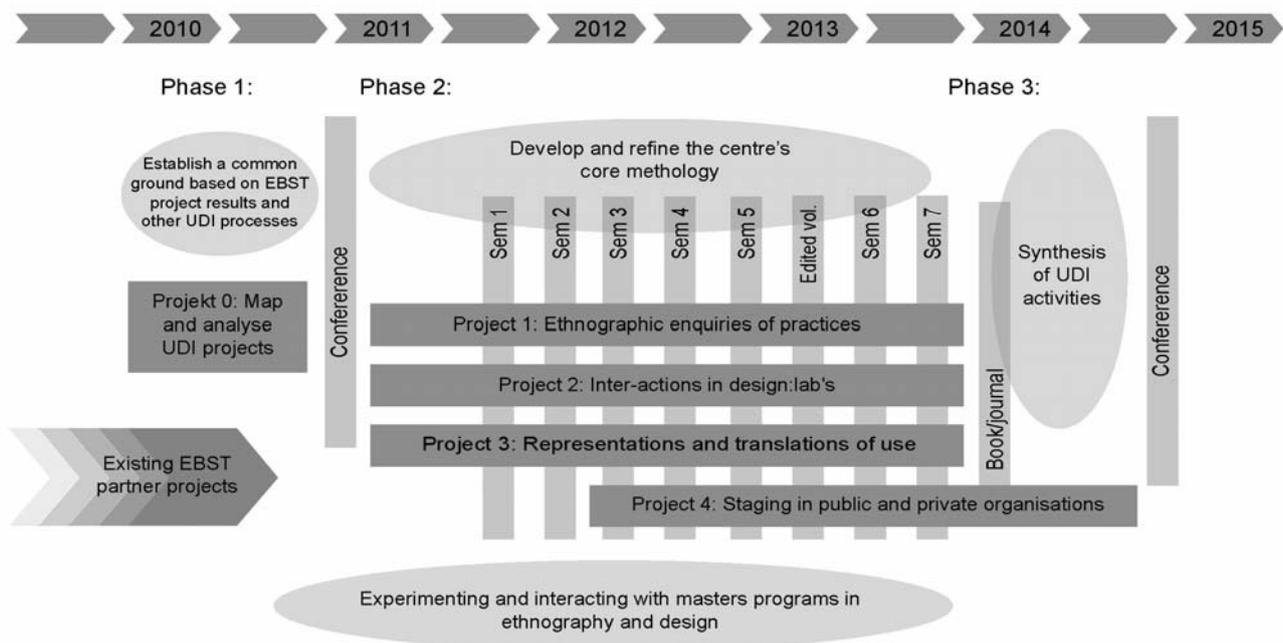
The following research objects and questions will be compared across the full diversity of settings: How are they organized, how are they created, how are emergent institutional and discursive structures of governance enacted, and how is political support and resources catered for? How are institutional structures and frames enacted and how do these hinder or support the translation of user involvement and knowledge into product-service concepts? Can sense-making devices be identified? What types of re-constitutions are needed to make co-creation activities possible? How are these new ideas challenging path dependencies?

Findings will be compared across institutional settings such as private sector companies with highly formalized and professionalized development processes, politically governed public sector organizations and service providers seeking to engage users in the development of new services and products. The project holds the responsibility for the contacts to Linak and Coloplast. The main faculty responsible for project 4 will be C Clausen (DTU).

In the synthesis of the results produced from the alliance's research a repertoire of methods will be developed for engaging in co-construction processes based on enabled temporary spaces including related advice on how to structure and stage the processes involved.

Additional seminars will be held resulting in the publication of journal articles. In addition a book comprising of a summary of the various types of user-involvement, staging, and translations methods directed towards experienced practitioners will be produced. Second, an international seminar / conference will be held to discuss the broader effects and patterns which have emerged from the research on user driven innovation at large. This seminar / conference will take its point of departure in the two edited volumes published by the alliance, but it will aim to broaden and internationalize the discussions as much as possible.

The following figure illustrates timeline, phases, projects, workshops, and publications:



8. Project's international dimension

Three specific ways of including international activities are planned:

(1) We will actively engage three international guest professors in the research and workshop activities. They have committed themselves to cooperative activities for 6 to 9 months each:

- Prof. Elizabeth Shove, Sociology Department, University of Lancaster, will contribute with studies of use practices and how change can be performed within a design perspective.
- Prof. Trevor Pinch, Department of Science and Technology Studies, Cornell University, will contribute within studies of user configurations, competences, performance, and social learning.
- Prof. Pelle Ehn, School of Arts and Communication in Malmø, will contribute to the development of design laboratories and user engaging processes.

(2) Some workshops will be organised in cooperation with the guest professors' home institutions so as to enhance outreach and support further cooperation with research groups from those institutions and regions.

(3) Existing contacts with other internationally outstanding research groups will remain and provide the basis to invite further guest researchers to partake in workshops and bilateral project activities. These include: Robin Williams, Research Centre for Social Sciences, Edinburgh University (social shaping of technology); Bruno Latour, Sciences Po, Paris (ANT and design strategy); Albena Yaneva, Manchester School of Architecture (ethnographies of professional practice); Judith Gregory, Institute of Design, Chicago (design practice and methods); Elizabeth Sanders, Ohio State University; Johan Redström, Interactive Institute, Stockholm (conceptual and critical design); Turkka Keinonen, University of Art and Design, Helsinki (concept creation); Rachel Cooper, Lancaster Institute for the Contemporary Art, Lancaster University (design management); Stuart Walker, Imagination Lab, Lancaster University (sustainable design); Sampsa Hyysalo, Helsinki Collegium for Advanced Studies, University of Helsinki (interaction and learning).

The international contribution comes from well established and strong research traditions within science and technology studies (STS) and design research that can complement and enhance Danish research within the field of user involving innovation and design performance. The international participation in the alliance will strengthen the partner's publication practices and help the alliance to keep pace with international discussions and development in the different fields of research relevant to the alliance.

9. Legal and ethical aspects

Close interactions with actors in daily life situations and with users engaged in specific practices can in some situations raise ethical questions of privacy and personal integrity e.g. in relation to personal behaviour and intimacy. This is rather obvious in relation to e.g. patients or other situations where the persons involved are not in control of their appearance. It is especially the case when observers are present and studies are conducted also with the use of video or audio taping. In studies of practice and use these situations may be critical also for the outcomes of the research. Measures will be taken to maintain the participants integrity and carry out the research based on acceptance by the participants.

10. Publications and promotional strategy

The scientific core studies, experiences, theoretical reflections, and methodological lessons will be communicated primarily in journal. We expected to publish approx. 10 journal articles per year after the first period dominated by the initiation of cooperation in the alliance. Several of these are intended to be co-authored as a mechanism to support the interdisciplinary cooperation in the alliance. The workshops will be sites for discussion and improvements of papers leading to published articles. The workshops will include international guest researchers and some will as indicated be organised in cooperation with the international guest professors outside Denmark. The

workshops are in addition expected to result in two edited volumes and in a one or two monographs presenting the research outcomes.

The two planned conferences are intended to produce a number of journal articles by the participants from the alliance and other participants, as well as an edited book summing up the results and frameworks developed in the alliance. The first conference will provide reflections on the background for and the experience of unfolding the alliance's core ideas, while the second will present results from design processes using and experimenting with the developed methodologies.

The projects carried out by the alliance partners in cooperation with companies, consultants, organisations and public bodies will contribute to their innovative activity and may result also indirectly in new designs as well as new processes leading to innovations and new products and services. A series of process cases and methodological reports will be produced to be used in relation to professional educations and within companies, institutions and user groups.

11. Exploitation of results

The result from the alliance will be communicated within the international academic community as well as in the Danish and international design community including companies and organisations interested in utilising the finding concerning user-engagements in innovation and design of new products, processes, and services. During the research activities the involved external partners are expected to use the results and lessons learned in their own development. The dissemination to this potential broader audience of users of results from the research will be targetted in the last phase of the activities.

The partners in the alliance are deeply involved with three major outlets for knowledge and ideas in Danish and international master programs in design and user involvement at our universities. Courses, exercises, and internship programs will be developed aiming at learning future design professionals competences in staging variants of user driven innovation. This activity will include research input to curriculum development and the active use of student projects and joint projects with consultants and companies as a source of ideas and as a testing ground for results. These programs produce a significant number of new professional designers every year - more than 75 - of which most also have international experience as part of their education. They will in addition to the direct cooperation with external partners provide an important channel for the dissemination of results from the research.

Concerning the legal aspects of engaging with broader groups of users, certain situations may result in conflicts of interests between the involved companies and institutions interested in stating property rights for specific ideas and inventions on one side, and the engaged groups of researchers and potential users. In the relationship between researchers and companies / institutions measures will be taken to produce a mutually accepted legal framework stating the respect for authorship, open publication of results and case studies from the research at the level of methodologies, processes, and specific methods, as well as specific property rights related to ideas and concepts for products and concepts.

12. The participating parties

The partners bring multiple competences to the alliance through their grounding in different research traditions. The common focus is the partners' mutual interest in and inspiration from the sociology of technology and actor network theory bringing new perspectives and results to the agenda of user driven innovation and design.

The research group at DTU (U Jørgensen, C Clausen, Y Yoshinaka, T E Jensen, S Ahmed, H Lindegaard, and B Hoffmann) is a multidisciplinary team which has been working with innovation management, socio-material analysis and user oriented design for many years. They have studied the co-construction of products and practices in fields like health care, food provision, and energy

systems. They have also studied innovation strategies of companies based on new spaces for innovation (Clausen & Yoshinaka 2005; Lindegaard 2008). The team is involved in the Design & Innovation education at DTU based on an integration of approaches from the sociology of technology and design thinking. The DTU research is experienced in organising collaborative activities and manage cross disciplinary and cross institutional teams. Bringing together classical engineering design theories/methods with the ethnographic approaches to studies of user practices this group provides a basis for cooperation in the alliance (Jørgensen & Sørensen 2002; Elgaard Jensen 2008; Ahmed 2007).

The researchers at the Danish Design School, participating in the Centre for Design Research (T Binder and E Brandt) have developed and explored design approaches for co-exploration and co-design within the field of participatory design (Binder & Hellström 2005). They have coined the notion of design laboratories as experimental sites for the content and framing of participation (Binder & Brandt 2008), and will contribute to the alliance with expertise in framing participation, performance and intervention e.g. by using drama and props (Brandt & Grunnet 2000), enacted video-scenarios (Buur, Binder & Brandt 2000), and new types of design games (Brandt, Messeter & Binder 2008).

The Ethnology Section of the Saxo Department at University of Copenhagen (T Damsholt, A. Jespersen) are specialists in analysing contemporary every day life, focussing and reflecting especially on the diversity of meanings and rationalities in everyday practices. They contribute to the alliance with their cultural analytical perspective and expertise in how ethnographic methodology can be developed further to contribute to innovative practices (Damshold & Petersen 2008). The Ethnology Section is part of a new Masters program in Applied Cultural Analysis in cooperation with the University of Lund, Sweden, focusing on user driven innovation.

In addition from The Department of Psychology at Copenhagen University (N C Nickelsen) contribute with social cognitive and organisational psychology research. This embraces studies of how individuals and collectives work, learn, and innovate in everyday life and draw on professional expertise of different kinds. Design processes are complex and involve weaving together different competences, agendas, and technologies (Nickelsen 2008).

The interdisciplinary cooperation among the involved partners and the international guest researchers is crucial for the alliance and will be secured through their cooperation in the activities organised in common workshops and accompanying projects. Each partner will be responsible for some workshops and all partners will contribute and partake in workshops organised by the alliance to reach the intended synergies. Through the co-authoring of publications and cooperation in the intra- and inter-zone actions the different disciplines and their different approaches will be confronted and challenged through informed dialogue developing new approaches and eventually interdisciplinary contributions to the theories involved.

13. Project management

The alliance will be hosted at DTU which is also indicated in the budget as this partner is holding the budget lines for common activities. The alliance will be coordinated by the applicant, Ulrik Jørgensen. As director of the alliance he will be responsible for the realisation of the research program and economic affairs. Ulrik Jørgensen has a research background combining core fields of technology studies, studies of professional competence, and the application of ethnographic methods in design. He is heading the Danish cross-institutional doctoral program for Design and Innovation.

The director will refer to an advisory board that will be consulted on the alliance's research strategy and outreach activities. The board will be composed of the three international guest professors involved in the alliance, a representative from the Strategic Research Council, and three representatives from industry and societal institutions with key interests in user-driven innovation. Through this double engagement of the alliance's guest professors their engagement and close

interaction with specific research activities as well as the overall management of the alliance is supported.

A management group with one representative from each of the involved three main partners will be established to support the director. It will be involved in revising the research program and budgets if necessary and will overlook all employment decisions in the alliance. It will also be involved in defining the workshop programs in detail and giving advice to the academic staff to be responsible for organising each of the workshops.

There are three main mechanisms involved in building and managing synergy in the alliance's core activities that are crucial for the success of the research in reaching its objectives:

1. One is to structure the cooperation between the different modes of inquiry and not least to develop the translation processes binding these together which demands a continued exchange of theoretical and empirical material and discussions hereof. This will be supported by cross-cutting discussions in workshops where each of the partners besides their responsibility for their own phase 2 project will provide support and methodological advice for the other partners so that they can perform studies including the other modes of inquiry in the sites they are responsible for.
2. The second is to maintain the overall timeline defining the learning and exchange processes and dissemination activities, where organising the planned series of workshops, organising conferences and structure the publication activities are important coordination entities. It is the director's job to handle the delegation of responsibilities for these activities to the researchers involved. Workshops offer the opportunity to align and confront different experiences and approaches in combination with the goal of co-authoring publications to a coherence alliance round the core research and other activities.
3. The third is to make sure that the projects and case studies in which the alliance engages take their point of departure in the guiding questions and the methodology resulting from the first phase. The portfolio of projects and cases are intended to cover a variety of spaces to be studied as well as the different actors involved or to become engaged. Also the variety of involvements in interactive design laboratories and concept developments will be identified and studied on an exemplary basis.

Responsibility for the research and for workshop activities is from the outset distributed among the partners to share the work load and to engage and involve the partners' specific areas of competence. This includes also the workshops to be organised and hosted with the guest professor's home institutions. The partners have now practiced several years of cooperation and see the different institutional and disciplinary backgrounds as an important advantage not hindering a close coordination of activities.

Concerning the continuation of the research activities initiated by the alliance, the involved partners will also after the period of funding have innovation based on user involvement and co-creation as a core research activity. The research in design issues will be supported by and relate to the partners' extensive engagement in design educations.

The alliance has given priority to the funding of 4 PhD grants and 3 post-doc grants in the budget. Each of the PhD's will be hosted by the departments relevant to the project, they are most connected to, and their PhD schools. The research topics and study plans will be discussed in the management group and have to be accepted by the director. Even though individual PhD grants may be co-funded by external partners the content of their study and their research time will be structured to support the overall aims of the alliance.

All PhD students will be enrolled in the doctoral program in Design and Innovation hosted by DTU to support collaboration and a common research education. This doctoral program has its focus in the same fields of research as the alliance and is covering major institutions involved in design

research in Denmark including the University of Southern Denmark (hosting the SPIRE centre) and Aalborg University.

The cooperation with external partners is organised on one side through the projects, they are directly involved with, and through the broader workshops organised to disseminate results and to involve the external partners in active exchange of knowledge. The management group will follow the contacts to the external partners from business and public authorities to maintain the inter-active connection and secure the mutual benefit of their involvement.

14. Network function

The core aim of the alliance is to structure and maintain the development of new approaches and methods for performing and enacting user driven innovation. This is organised as a revolving set of activities including the alliance's own research and PhDs held together by a framework of coordinating workshops, guest researcher engagements, and cooperation on co-authored articles and publications across the involved partnering institutions. The activities are structured within an overall methodology and in the 5 coordinated projects of the alliance.

These core activities involve a number of external partners from companies, public institutions, and design consultants all of which have committed to partake in the workshop activities and knowledge exchange within the alliance. The projects will produce results of mutual relevance and provide test space for the ideas and methods developed in the alliance.

Dissemination to the broader national communities of practitioners within product development and user oriented innovation as well as consultants in design and innovation and public sector user groups will be organised through a series of reports and a number of dedicated workshops.

At the national level the alliance will cooperate on research training with the doctoral program Design and Innovation and with other projects and centres working with user-driven innovation. Specific relations are established to the SPIRE centre at SDU performing complementary research of great relevance and inspiration for the alliance. The research training for PhD students will provide a broad basis from the modes of inquiry as well as the more specific focal areas in the research of the alliance. Three of the PhD grants will have one of the modes of inquiry as their focal theme and at the same time emphasise the processes and translations that establish the connections between these. The fourth PhD grant will have its main focus on the synthesis and staging of user-involving design processes. While the post-docs are completing the competences of some of the partners and will help embedding the research within respective departments research activities contributing to enhance their existing disciplinary focus with some of the new areas covered by the alliance.

The preliminary topics for the first six workshops organised by the alliance are the following:

1. Concepts for user-involvement. The role of concepts for user-involvement in the configuration of temporary spaces, their organisational and strategic underpinnings and their outcome.
2. Representations of absent users and situations. How can potential users be identified in a fluid situation as relevant actor roles or practices being able to perform in a design setting.
3. Prototypes and prototype practices. The role of prototypes in the staging of temporary user-artefact interactions and in the development of novel configurations of users and artefacts.
4. The practice of design games. The role of design games and tools in the sharing and transformation of knowledge across projects, knowledge domains and institutional borders.
5. The framing and delimitation of design issues. How do temporary spaces frame design issues? How can these subsequently be made accountable within broader development processes?
6. Design games as rehearsals of practice. How can the performed nature of design laboratories be described and explained and with what impact on professional practices.

15. Key references

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